

The payment for concrete pavement or high early strength concrete pavement shall include all work and items involved in construction of pavement such as Portland Cement, fly ash, steel reinforcement, tie bars, joint sealants, curing materials, etc. Payment will be made at the Contract Unit Price for the following:

Pay Item	Pay Unit
Non-Reinforced Concrete Pavement	Square Yard
Reinforced Concrete Pavement	Square Yard
Non-Reinforced Concrete Pavement (HES)	Square Yard
Reinforced Concrete Pavement (HES)	Square Yard
Continuously Reinforced Concrete Pavement	Square Yard

- B. **Miscellaneous Items.** When shown on the Plans, payment will be made at the Contract Unit Price for the following:

Pay Item	Pay Unit
Portland Cement, Type ____	Ton or Cwt.
Fly Ash	Ton
Steel Fabric, ____	Square Yard
Reinforcement Bars	Pound
Doweled Expansion Joint Assembly	Linear Foot
Doweled Contraction Joint Assembly	Linear Foot
Integral Curb	Linear Foot
Preformed Elastomeric Compression Joint Seal	Linear Foot
Longitudinal Shoulder Joint	Linear Foot
Continuous Rumble Strip	Mile

This payment will be full compensation for all labor, equipment, and materials necessary to complete the work.

SECTION 560 RECYCLED PORTLAND CEMENT CONCRETE PAVEMENT

560.01 DESCRIPTION.

This work consists of removing, crushing, screening, and stockpiling Portland Cement Concrete pavement into the required gradation, and adding new materials to produce and place a Portland Cement Concrete pavement. Section 550 will be applied in conjunction with this Section.

560.02 MATERIALS.

Materials shall meet Sections 550 and 802.

Class AE Portland Cement Concrete pavement shall consist of processed salvaged concrete, new coarse aggregate, new fine aggregate, water, an air entraining agent, and Type I, IA, or II Portland Cement.

560.03 EQUIPMENT.

Equipment shall meet the following:

Item	Section
General	151.01
P.C.C. Equipment	153

560.04 CONSTRUCTION REQUIREMENTS.

- A. **Preparation of Stockpile Sites.** The Contractor shall obtain the stockpile and plant site (or sites). All available topsoil shall be removed and stockpiled on the site. The site shall be shaped to drain away from the stockpile and then compacted. The Contractor shall furnish, place, compact, and shape to drain, a 6-inch base of granular material, with less than 30% passing the No. 200 sieve.
- B. **Stockpiling.** The salvaged material shall be stockpiled according to Section 106.06. Each stockpile shall be located to facilitate future processing and access to the material without interference by other stockpiled material.

All stockpiled salvaged concrete material remaining at the completion of the Project shall be the property of the Department.

- C. **Removing Concrete Pavement.** The earthen inslopes shall be bladed away from the shoulder surfacing before removing any surfacing. When the surfacing is replaced and completed, the earthen inslopes shall be restored to form a smooth uniform inslope free of clumps of dirt, sod, rocks, etc.

Construction operations shall be conducted without damaging existing signs, culverts, guardrail, and roadway appurtenances. Damaged items shall be replaced by and at the Contractor's expense.

Bituminous shoulders adjacent to the concrete pavement shall be removed before removing the concrete pavement. This material shall be removed from the roadway and hauled to a stockpile site in conformance with specified requirements.

Before removing the pavement, all bituminous patching material and joint material shall be removed and disposed of by the Contractor at locations acceptable to the Engineer.

The pavement shall be removed with equipment and methods that do not contaminate the removed material with dirt, aggregate, and other foreign material. Removal equipment or methods that damage culverts under the roadbed shall not be permitted. Damaged culverts shall be replaced by and at the Contractor's expense. The removed pavement shall be loaded and hauled to the prepared stockpile site and stockpiled as specified.

- D. **Existing Reinforcing Steel.** The reinforcing steel removed from the existing Portland Cement Concrete pavement shall become the property of the Contractor and be removed from the highway Right of Way upon completion of the Project.

- E. **Processing Salvaged Concrete.** The removed concrete shall be crushed to the maximum size specified. It shall be of such gradation that when combined with the virgin aggregate, the total coarse aggregate meets the gradation requirements of Size 4 concrete aggregate of Section 816.02 A, including material passing the No. 200 sieve.

Crushing operations shall be adjusted to maximize the amount of crushed material retained on the No. 8 sieve, while still maintaining the Size 4 aggregate gradation. All reinforcing bars, mesh, dowel bars, dowel bar assemblies, joint filler, bituminous material, and other foreign material shall be removed from this material. Foreign material shall be disposed of at locations acceptable to the Engineer. Any equipment and method to remove foreign material may be used that produces results acceptable to the Engineer.

A spray bar shall be installed at the end of the crushing operation to prewet the salvaged coarse aggregate before it is placed in the stockpile. All coarse aggregate stockpiles shall be prewatered to the extent that it is above a saturated surface dry condition at the time of incorporation into the mix. All costs to achieve this moisture condition shall be incidental to other items of work.

- F. **Mixing.** The processed, salvaged concrete shall be mixed in the plant according to Section 802 for a Class AE mixture. The coarse aggregate in the concrete mixture shall consist of a minimum of 20% coarse virgin aggregate. The salvaged aggregate and virgin aggregate shall be blended in the plant.

The percentage of new fine aggregate may require adjustment to achieve a workable mix.

- G. **Placing.** The concrete mixtures shall be placed according to Section 550.
- H. **Pavement Surface Riding Quality.** Riding quality and pay adjustment will be as specified in Section 550.04 P.2.
- I. **Determination of Pavement Thickness.** Pavement thickness will be determined as specified in Section 550.04 Q.3.

560.05 METHOD OF MEASUREMENT.

- A. **Prepare Stockpile Site.** Prepare Stockpile Site will be measured and paid for by the lump sum. The lump sum bid shall be full compensation for one site only, additional sites used for a stockpile or plant site shall be at the Contractor's expense. The lump sum payment shall include all labor, equipment and materials to complete the work as specified.

All virgin P.C.C. pavement aggregate and salvaged bituminous stockpiled at the plant site shall be considered the property of the Contractor. Payment will not be made for salvaged material which is stockpiled and not incorporated into the project.

- B. **Removal of Concrete Pavement.** Removal of Concrete Pavement will be measured by the Square Yard of material removed from the roadway.
- C. **Recycled Concrete Pavement.** All concrete pavement produced shall be paid for at the unit price bid for Recycled Concrete Pavement even after all sources of salvaged coarse aggregate have been exhausted.

- D. **Restore Stockpile Site.** Restore Stockpile Site will not be measured for payment but will be incidental to other pay items.
- E. **Coarse Aggregate Size 4.** Coarse Aggregate Size 4 will be measured by the ton, based on the saturated surface dry weight, of material used as specified. The weight of Size 4 shall be determined from the mix design weight of the aggregate multiplied by the number of batches produced minus any waste.
- F. **Fine Aggregate.** Fine Aggregate will be measured by the Ton, based on the saturated surface dry weight, of material used as specified. The weight shall be determined from the mix design weight of the aggregate multiplied by the number of batches produced minus any waste.

560.06 BASIS OF PAYMENT.

- A. **Recycled Concrete Pavement.** The accepted quantities of Recycled Concrete Pavement will be paid according to Section 550.06 and the following:

Pay Item	Pay Unit
Nonreinforced Recycled Pavement	Square Yard
Prepare Stockpile Site	Lump Sum
Removal of Concrete Pavement	Square Yard
Coarse Aggregate, Size 4	Ton
Fine Aggregate	Ton

If the bid items "Fine Aggregate" and "Coarse Aggregate, Size 4" are not included as pay items in the Contract, payment for these items will be included in the price bid for "Nonreinforced Recycled Concrete Pavement."

- B. **Miscellaneous Items.** When shown on the Plans, payment will be made at the Contract Unit Price for the following:

Pay Item	Pay Unit
Portland Cement, Type ____	Ton
Fly Ash	Ton
Steel Fabric, ____	Square Yard
Reinforcement Bars	Pound
Doweled Expansion Joint Assembly	Linear Foot
Doweled Contraction Joint Assembly	Linear Foot
Integral Curb	Linear Foot
Preformed Elastomeric Compression Joint Seal	Linear Foot
Longitudinal Shoulder Joint	Linear Foot
Restore Stockpile Site	Lump Sum

This payment will be full compensation for all labor, equipment, and materials necessary to complete the work.